

REMARKS

Claims 1-4 and 6-11 are in this application.

Claims 1-4 and 6-11 have been amended to make certain clerical and grammatical errors and these have no effect on the scope of the claims.

Claim 5 has been cancelled.

The Examiner has rejected claims 1-11 under 35 USC 103(a) as being unpatentable over Yoo, (U.S. 2005/0080280 corresponds to WO 03/066567) in view of Yean, et al. (Applied Organometallic Chemistry, 2000, vol. 14) and Basu, et al. (U.S. 5,525,126).

This is respectfully traversed.

It is applicants position that the claims are not obvious and the Examiner has not set out a *prima facie* case of obviousness. As stated in the Examination Guidelines for Determining Obviousness under 35 USC 103 published in the Federal Register on October 10, 2007, "[t]he key to supporting any rejection under 35 USC 103 is a clear articulation of the reasons why the claimed invention would have been obvious. The Supreme Court in KSR noted that the analysis supporting the rejection under 35 USC 103 should be made explicit. The court quoting In re Kahn (441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)) stated that rejection on obviousness cannot be sustained by mere conclusory statements instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

The Examiner has not done this.

The process claimed in this patent application is for continuous transesterification of a fatty acid glycerides in the presence of a catalyst. The invention relates to preparation of fatty acid alkyl esters. In this process esterification of free fatty acids and transesterification of

glycerides occur simultaneously in one step. Unlike the disclosure of Yoo, in the process claimed in this application, a neutral catalyst is used, the advantage of which is that no neutralization step is required. This is an advantage over Yoo in that the claimed process is streamline. The claimed process is also applicable to esterification of pure fatty acids as indicated in Example 7 where pure oleic esters are used for esterification.

The present process is carried out under high pressure wherein the pressure lies between 1 to 30 bar.

In addition, in the claimed process the temperature of the reaction can exceed 150°C up to 300°C without detrimental problems of carbonization and/or saponification.

In regard to Ycan, the cited study was carried out only with pure tripalmitin as feedstock wherein the present inventors have used natural vegetable oil which contain various impurities like free fatty acids, phospholipids, sterols, water, and other impurities which effect the transesterification reaction.

In Yean the reaction was carried out at 70°C an atmospheric pressure whereas the process of the present invention was conducted at 70 to 300°C under moderate pressure (1-30 bar). There is no mention of transesterification of tripalmitate to methyl palmitate with dioctyl tin oxide or butyl tin oxide catalyst. What was measured in the catalytic efficacy based on the estimation of the yield of the glycerol product. In fact, according to Yean, the difference in glycerol yields was about 60% relating to the influence of substituents in the alkoxy residue. Further, there is not disclosure or suggestion that tin catalysts will be useful in the process claimed in this application. Further, Yean discloses a two step process.

There is no combination of the two references that makes the claimed invention obvious. There is no suggestion in Yoo that a neutral catalyst can be used and since there is no suggestion or disclosure of a neutral catalyst, it is not obvious to substitute an alkali catalyst with a neutral catalyst. Therefore, as the primary and second references do not make the claimed invention obvious, the fact that discloses Basu disclosed drying and filtering in a totally different process and context is irrelevant.

It is respectfully requested that the rejection be withdrawn.

Accordingly, it is submitted that the present application is in condition for allowance and favorable consideration is respectfully requested.

Respectfully submitted,



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